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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/512,075	11/05/2004	Takayuki Nakachi	261302US90PCT	2793
22850	7590	07/22/2009		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
DIEP, NHON THANH				
ART UNIT		PAPER NUMBER		
2621				
NOTIFICATION DATE		DELIVERY MODE		
07/22/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/512,075

**Applicant(s)**

NAKACHI ET AL.

**Examiner**

Nhon T. Diep

**Art Unit**

2621

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-12, 20-24, 28-30 and 34-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-12, 20-24, 28-30 and 34-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/05/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of claims 8-12, 20-24, 28-30 and 34-36 in the reply filed on 4/30/2009 is acknowledged. The traversal is on the ground(s) that "While the Requirement does list the different groups of claims, it DOES NOT "(2) explain why each group lacks unity with each other group (i.e., why there is no single general inventive concept) specifically describing the unique special technical feature in each group". This is not found persuasive because as indicated in the previous office action, group I is drawn to an encoding method for video image using embedded type entropy encoding method, group II is drawn to an encoding method for video image using orthogonal transform, and group II is drawn to a decoding method for video image using subband and based on bandwidth and they are classified in different subclasses; and that examining all three different groups presents a serious burden for examiners.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1, 2-7, 9, 11-12, 14-18 and 20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding to claims 1, 2-7, 9, 11-12, 14-18 and 20, which are method claims, and that the claims do not fall within one of the four statutory categories of inventions. Supreme Court precedent and recent Federal Circuit decisions indicate a statutory

"process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, it is considered that none of the steps in the claims positively recites the other statutory class (the thing or product) to which it is tied, for example, by identifying the apparatus that accomplishes the method steps, In re Bilski, 88 USPQ2d 1385 (Fed. Cir. 2008).

4. Claims 28-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding to claims 28-30, which recite a program for causing a computer to perform steps and as such, the claims as computer listings per se, do not define any structural and functional interrelationship between the computer programs and other elements of a computer which permit the computer program's functionality to be realized.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 8-9, 11-12, 20-21, 24, 28-30 and 34-36 are rejected under 35

U.S.C. 102(b) as being anticipated by Fukuhara et al (2000-197052 and cited by the applicants).

Fukuhara et al discloses a wavelet coder, its method, decoder and its method comprising the same decoding method of decoding coded data with a resolution of  $N/M$  times ( $M$  and  $N$  are integers, and  $1 < \text{or} = N < \text{or} = M$  and  $M > 2$ ) that of an original image, the decoding method comprising:

a decoding step of receiving the coded data that are encoded by decomposing the original image into  $M$  uniform subbands, extracting  $N$  signals from decomposed signals from a low frequency side (para. 0021), and decoding the  $N$  signals by using an entropy decoding method (para. 0012); and

a bandwidth synthesizing step of synthesizing the  $N$  signals that are decoded (fig. 14) as specified in claims 8, 12, 20, 24, 28, 30, 34 and 36; the decoding method further comprising an inverse quantization step of inverse-quantizing the signals obtained by the decoding step, wherein signals that are obtained by the inverse quantization step are synthesized in the bandwidth synthesizing step (para. 0012, 0024 and Drawing 14) as specified in claims 9, 21, 29 and 35; and the decoding method further comprising a calculation step of obtaining a resolution of the original image and a predetermined resolution, and calculating the value  $N$  suitable for the predetermined resolution by using the resolution of the original image and the decomposition number  $M$  (Drawings 3 and 5) as specified in claims 11 and 23.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 10 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuhara et al, in view of Koyama et al (US 6,765,510).

As applied to claims 8 and 20 above, it is noted that Fukuhara does not particularly disclose wherein EBCOT used in the still image international standard JPEG 2000 is used as the entropy decoding method in the decoding step, and a uniform decomposing filter bank is used in the bandwidth synthesizing step as specified in claims 10 and 22. Koyama et al teaches "JPEG 2000 uses a coding called "EBCOT" (embedded block coding with optimized truncation)" for the entropy coding in order to make the most of the features of the discrete wavelet transform". And, therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Fukuhara by using EBCOT for entropy coding as taught by Koyama et al. Doing so would help to improve coding efficiency.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Fukuhara et al (US 7,127,111 B2) discloses an image coding and decoding methods and apparatus

b. Joshi et al (US 6,895,121 B2) discloses method for utilizing subject content analysis for producing a compressed bit stream from a digital image.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon T. Diep whose telephone number is 571-272-7328. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ND

/Nhon T Diep/  
Primary Examiner, Art Unit 2621